

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA**

CALAMP WIRELESS NETWORKS  
CORPORATION,

Plaintiff,

v.

ORBCOMM INC.,

Defendant.

Case No. \_\_\_\_\_

**CALAMP WIRELESS NETWORKS CORPORATION’S COMPLAINT FOR PATENT  
INFRINGEMENT**

Plaintiff CalAmp Wireless Networks Corporation (“CalAmp”) hereby files this Complaint for Patent Infringement against Defendant Orbcomm Inc. (“Orbcomm”) for infringement of U.S. Patent Nos. 6,151,355 (“the ‘355 patent”) and 6,850,839 (“the ‘839 patent”). CalAmp alleges as follows:

**THE PARTIES**

1. CalAmp is a Delaware corporation with its principal place of business at 15635 Alton Parkway, Suite 250, Irvine, California 92618. CalAmp is a wholly-owned subsidiary of CalAmp Corp.

2. CalAmp is a leading provider of wireless communications solutions for a broad array of applications to customers globally. CalAmp offers solutions to address the markets for Mobile Resource Management (“MRM”) applications, the broader Machine-to-Machine (“M2M”) communications space and other emerging markets that require connectivity anytime and anywhere. CalAmp’s extensive portfolio of intelligent communications devices, scalable cloud service enablement platforms, and targeted software applications streamline otherwise complex M2M or MRM deployments for its customers. CalAmp’s broad portfolio of wireless communications products includes asset tracking devices, mobile telemetry units, fixed and

mobile wireless gateways and full-featured and multi-mode wireless routers. CalAmp's MRM and M2M devices have been widely deployed with more than six million devices currently in service around the world.

3. CalAmp, through its parent CalAmp Corp., has expanded its product and service offerings over the years through strategic acquisitions, including the 2013 acquisition of Virginia-based Wireless Matrix USA, Inc., where, now integrated into CalAmp, it maintains certain operations. CalAmp Corp.'s acquisitions also include the 2006 acquisition of Dataradio, Inc., a leading supplier of proprietary advanced wireless data systems, products, and solutions for public safety, critical infrastructure, and industrial control applications.

4. Orbcomm is a Delaware corporation with its principal place of business at 395 W. Passaic Street, Suite 325, Rochelle Park, New Jersey 07662.

5. Orbcomm has alleged that it is a leading global provider of machine-to-machine communications solutions and operates a proprietary satellite network dedicated to facilitating these communications.

6. Orbcomm maintains a presence in this district at a facility located in Sterling, Virginia, which Orbcomm has alleged is the headquarters for Orbcomm's engineer and product development team and houses the majority of Orbcomm's engineers and researchers. Orbcomm has alleged that its Sterling, Virginia facility is also home to Orbcomm's Innovation and Network Control Center, its corporate information technology group, and a large number of Orbcomm's sales and marketing personnel.

7. Orbcomm filed suit alleging patent infringement against CalAmp's parent, CalAmp Corp., on April 7, 2016 in the Eastern District Virginia, in Case No. 3:16-cv-208. CalAmp Corp. denies Orbcomm's infringement allegations and has filed a counterclaim for

inequitable conduct, an exceptional case finding, and an award of attorneys' fees. The case is currently scheduled for trial commencing May 15, 2017.

8. There is technical overlap between Case No. 3:16-cv-208 and the present case. For example, both cases involve patents relating to remote tracking systems and methods. Further underscoring the overlap, several of the devices upon which Orbcomm relies in Case No. 3:16-cv-208 to support its alleged lost profits claim are the same devices accused of infringement in this Complaint, including the IDP-600 Series, IDP-700 Series, IDP-800 Series, GT 1100 Series, GT2300 Series, PT7000 Series, and SG-7100 Series.

### **JURISDICTION AND VENUE**

9. This Court has original subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a), as this action arises under the United States patent laws, 35 U.S.C. § 271, *et seq.*

10. This Court has personal jurisdiction over Orbcomm given Orbcomm's substantial business in Virginia and in this judicial district specifically, as well as Orbcomm's choice of this forum for its own infringement litigation against CalAmp's parent corporation, CalAmp Corp.

11. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b). A substantial part of the acts giving rise to this action occurred in this judicial district, Orbcomm is subject to personal jurisdiction in this judicial district, and Orbcomm has committed acts of infringement and has regularly conducted business in this judicial district.

### **FACTUAL BACKGROUND**

#### **The '355 Patent**

12. The United States Patent and Trademark Office issued the '355 patent on November 21, 2000. The '355 patent is attached as Exhibit A and is entitled "Wireless Modem."

13. The '355 patent was developed by inventors at Dataradio, Inc ("Dataradio").

CalAmp is currently the owner of all right, title, and interest in and to the '355 patent.

14. The '355 patent claims a wireless modem unit with improved characteristics over the prior art wireless modems, which were relatively unsophisticated, by including a microcontroller that enables monitoring and control functions to be performed by the modem unit itself.

15. More specifically, the '355 patent discloses and claims a wireless modem unit in which a microcontroller controls switches to determine whether received data is routed from the modem to the microcontroller or to a serial port connected to the user's computer, whether data to be transmitted by the modem is sent from the microcontroller or the serial port, and whether the microcontroller receives data from the port or the modem. This enables the wireless modem unit of the '355 patent to work with an external computer as a conventional wireless modem would, or for the microcontroller to monitor and process other information and transmit it without the need for or input from an external computer.

16. The specification of the '355 patent explains that it was particularly difficult for prior art modems to monitor the quality of the radio link or the proper operation of the modem when used in unattended communications applications, such as remote monitoring of telemetry systems. The invention of the '355 patent overcomes this problem by allowing the modem unit to obtain and send diagnostic data during operation using a microcontroller in the modem unit.

17. Claim 1 of the '355 patent discloses a wireless modem unit that includes a bidirectional serial digital data port, a transceiver, and a modulator/demodulator (i.e., a modem), wherein the microcontroller controls switches to determine whether the modem receives data to be transmitted from the microcontroller or the port, whether the modem passes received data to the microcontroller or the port, and whether the microcontroller receives data from the modem or

the port.

18. Claim 2 of the '355 patent depends on claim 1, and adds that the modem unit includes control and handshaking lines between the port and the microcontroller.

19. Claim 3 of the '355 patent depends on claim 1, and adds that the modem unit includes means for monitoring operating parameters of the modem unit, and connected to the microcontroller, and control lines for the transceiver connected to the microcontroller.

20. Claim 4 of the '355 patent depends on claim 1, and adds that the transceiver is a radio transceiver.

### **The '839 Patent**

21. The United States Patent and Trademark Office issued the '839 patent on February 1, 2005. The '839 patent is attached as Exhibit B and is entitled "Time-Sensitive Article Tracking Device."

22. The '839 patent was developed by inventors at Sapias, Inc. Certain assets of Sapias, Inc. were acquired by Wireless Matrix USA, Inc., including the '839 patent. CalAmp is currently the owner of all right, title, and interest in and to the '839 patent.

23. The '839 patent discloses and claims a method of determining whether a tracking device is within a spatial zone, by having the tracking device obtain the current time and its position, determining a corresponding spatial zone, determining whether the tracking device is within the spatial zone, and requesting specific data from a server in response to such a determination.

24. The '839 patent also discloses and claims time- and position-aware tracking devices that have memory to store specific database records, and that determine a spatial zone based on the current time, determine whether the tracking device is within the spatial zone, and

request specific data from a server in response to such a determination.

25. The '839 patent discloses a server with a database of spatial zones and time intervals, as well as rules that pertain to the spatial zones and time intervals, including what actions the server and/or tracking device should take in response to the determination of whether the tracking device is within a spatial zone, and an action module for interfacing with a tracking device.

26. The '839 patent offers a number of improvements over traditional tracking systems. Rather than just determining whether a device is within a specified zone, the invention of the '839 patent more specifically determines whether a device is within a specified zone at predetermined times. Moreover, by determining the time and position, determining a corresponding spatial zone, and determining whether the device is within the zone all on the device, the device is capable of saving airtime costs because it need only send messages to the server when it determines that the device is within or outside the zone. By having the device request a subset of database records from the server in response to such a determination, the device is also able to save on memory costs, as the device need not store all of the database records and spatial zones locally. The database records downloaded by the device may also contain rules that specify how the device should react to a determination of whether the device is within a spatial zone. Because the rules may be downloaded from the server in response to a determination of whether the device is within a spatial zone, changing rules and spatial zones may be readily accommodated.

27. Claim 1 of the '839 patent claims a method for determining whether a tracking device is within a spatial zone by obtaining the current time and position of the tracking device, determining a corresponding spatial zone, determining whether the tracking device is within the

spatial zone, and sending a request to a server for a subset of database records in response to the determination of whether the tracking device is within the spatial zone.

28. Claim 2 depends on Claim 1, and adds that the tracking device notifies the server to indicate whether it is within the spatial zone.

29. Claim 4 depends on Claim 1, and adds that the current time and current position of the tracking device are obtained using GPS.

30. Claim 5 depends on Claim 1, and adds that the current time and current position of the tracking device are obtained using assisted GPS.

31. Claim 9 depends on Claim 1, and adds that the spatial zone defines a stop on a route, that each stop has a time interval indicating when the tracking device should be at the stop, that a determination be made of whether the tracking device has reached a stop at a corresponding time interval, and that an action be performed in response to that determination.

32. Claim 10 depends on Claim 1, and adds receiving database records from the server indicating one or more spatial zones and corresponding time intervals during which the spatial zones are valid.

33. Claim 11 claims a tracking device with a position determination receiver that receives signals that enable the determination of the current time and current position of the tracking device, with memory coupled to the receiver for storing multiple database records with spatial zone and time interval data, with a processing module for obtaining current time and position, determining a spatial zone that corresponds to the current time, determining whether the tracking device is within the spatial zone, and in response to the determination, requesting a subset of database records from the server.

34. Claim 12 depends on Claim 11, and adds that the database records include rules,

and the processing module performs an action in response to the rules.

35. Claim 13 depends on Claim 11, and adds that the processing module is adapted to notify the server to indicate whether the tracking device is within the spatial zone.

36. Claim 15 claims a server system for communicating with a tracking device including a database of time intervals and spatial zones, and an action module for interfacing with a tracking device, receiving a request from a tracking device for a subset of database records, and for sending database records to the tracking device.

37. Claim 16 depends on Claim 15, and adds that the action module is adapted to receive a notification from the tracking device indicating whether the device is within a spatial zone within the associated time interval.

38. Claim 17 depends on Claim 15, and adds that the received request includes an identifier for the tracking device and criteria that the action module uses to choose the database records to send.

39. Claim 19 depends on Claim 15, and adds that each database record stores rules indicating actions that the server should take in response to communication from the tracking device.

#### **Orbcomm's Products**

40. Orbcomm makes, uses, sells, offers for sale, and/or imports into the United States modem units, including the Orbcomm IDP 600 Series, IDP 700 Series, and IDP 800 Series (collectively, the "Accused Modem Devices").

41. The Orbcomm IDP 600 Series devices are satellite communication terminals that allow for the tracking and remote management of fixed and mobile assets nearly anywhere in the world. Among other applications, they may be used for managing trucks, fishing vessels, or oil and gas equipment.



42. The Orbcomm IDP 700 Series devices are dual-mode (satellite and cellular) or cellular-only modems used for vehicle telematics for fleet management applications.

43. The Orbcomm IDP 800 Series devices are trailer monitoring devices with integrated battery power. They are low-profile, fully programmable satellite communications devices with an integrated battery compartment for remotely tracking and monitoring trailers, containers, vessels and other fixed and mobile assets.

44. Each of the Accused Modem Devices includes a wireless transceiver. The IDP 600 and 800 series include satellite transceivers. The IDP 700 series includes a cellular transceiver and/or a satellite transceiver. The satellite and cellular transceivers in the Accused Devices are radio transceivers.

45. Each of the Accused Modem Devices include multiple inputs, including at least one bidirectional serial RS-232 port.

46. Each of the Accused Modem Devices includes a microcontroller, which is programmable using a Lua scripting engine. The microcontroller is capable of receiving data from any of the inputs, processing it, and sending it to the modem for transmission using the wireless transceiver. The microcontroller is also capable of receiving data from the modem that has been received from the wireless transceiver.

47. Each of the Accused Modem Devices includes a mode, which may be referred to as a “pass-through mode,” wherein the serial RS-232 port is directly connected to the modem, allowing data received over the wireless transceiver to be sent from the modem to the serial RS-232 port, and data to be transmitted over the wireless transceiver to be sent from the serial RS-232 port to the modem.

48. Each of the Accused Modem Devices includes switches operated by the

microcontroller that switch data between the serial port, the microcontroller, and the modem.

49. At least the IDP 600 Series devices include control and handshaking lines connected between the port and the microcontroller, namely the RTS (Request to Send) and CTS (Clear to Send) lines that are part of the RS-232 standard.

50. At least the IDP 600 Series devices include a temperature sensor that is connected to the microcontroller, which monitors operating parameters of the unit.

51. Certain of the Accused Modem Devices, specifically the IDP 600 Series, the IDP 700 Series, and the IDP 800 Series can be used as tracking devices. In addition, Orbcomm makes, uses, sells, offers for sale, and/or imports into the United States tracking units, including the Orbcomm IDP 200 Series, the GT 1100 Series, the GT 2300 Series, the PT 7000 Series, and the SG 7100 Series (collectively, the “Accused Tracking Devices”).

52. Each of the Accused Tracking Devices includes a GPS position determination receiver.

53. Each of the Accused Tracking Devices includes a memory in communication with the GPS position determination receiver.

54. Each of the Accused Tracking Devices includes a processor that can obtain the current time, and obtain the current position of the Accused Tracking Device from the GPS position determination receiver.

55. Each of the Accused Tracking Devices includes a processor that can determine a spatial zone corresponding to the current time, and determine whether the current position of the Accused Tracking Device is within the spatial zone.

56. Each of the Accused Tracking Devices includes the ability to communicate with a server.

57. Orbcomm also makes, uses, sells, offers for sale, and/or imports into the United States server software applications, including the CargoWatch, CargoWatch Secure, FleetEdge, viaFleet and AVL Agent (the “Accused Server Software”).

58. Each of the Accused Server Software products provides a spatial zones database, for storing multiple records including time intervals and spatial zones.

59. Each of the Accused Server Software products includes an action module for communicating with a tracking device, including receiving requests for database records from the tracking device, and sending database records to the tracking device.

### **COUNT ONE**

#### **Infringement of U.S. Patent No. 6,151,355**

60. CalAmp incorporates Paragraphs 1 through 59 as if fully set forth herein.

61. CalAmp is the owner of all right, title, and interest in and to the ‘355 patent.

62. The ‘355 patent is valid and enforceable.

63. Orbcomm makes, uses, sells, and offers for sale, and imports into the United States, modem units that directly infringe claims 1, 2, 3 and 4 of the ‘355 patent.

64. Orbcomm’s IDP 600 Series devices directly infringe claims 1, 2, 3, and 4 of the ‘355 patent.

65. Orbcomm’s IDP 700 Series and IDP 800 Series Devices directly infringe at least claims 1 and 4 of the ‘355 patent.

66. Orbcomm’s customers directly infringe claims 1 and 4 of the ‘355 patent when they use, sell, offer for sale, or import into the United States any of the Accused Modem Devices.

67. Orbcomm induces such infringement by promoting and encouraging the sale, use, offer for sale, and importation into the United States of the Accused Modem Devices.

68. Orbcomm's customers directly infringe claims 2 and 3 of the '355 patent when they use, sell, offer for sale, or import into the United States at least Orbcomm's IDP 600 Series devices.

69. Orbcomm induces such infringement by promoting and encouraging the sale, use, offer for sale, and importation into the United States of the Accused Modem Devices.

70. Orbcomm knows that the Accused Modem Devices infringe the '355 patent at least as of the date of the filing of this Complaint.

71. At least as of the date of the filing of this complaint, Orbcomm's infringement has been willful.

72. CalAmp has suffered damages as a result of Orbcomm's infringement of the '355 patent.

## **COUNT TWO**

### **Infringement of U.S. Patent No. 6,850,839**

73. CalAmp incorporates Paragraphs 1 through 72 as if fully set forth herein.

74. CalAmp is the owner of all right, title, and interest in and to the '839 patent.

75. The '839 patent is valid and enforceable.

76. Orbcomm makes, uses, sells, and offers for sale, and imports into the United States, tracking devices that directly infringe claims 11, 12 and 13 of the '839 patent.

77. Orbcomm's customers directly infringe claims 1, 2, 4, 5, 9, 10, 11, 12 and 13 of the '839 patent when they use, sell, offer for sale, or import into the United States any of the Accused Tracking Devices.

78. Orbcomm induces such infringement by promoting and encouraging the sale, use, offer for sale, and importation into the United States of the Accused Tracking Devices.

79. Orbcomm knows that the Accused Tracking Devices infringe the '839 patent at least as of the date of the filing of this Complaint.

80. Orbcomm's customers directly infringe claims 15, 16, 18 and 19 of the '839 patent when they use, sell, offer for sale, or import into the United States any of the Accused Server Software.

81. Orbcomm induces such infringement by promoting and encouraging the sale, use, offer for sale, and importation into the United States of the Accused Server Software.

82. Orbcomm knows that the Accused Server Software infringes the '839 patent at least as of the date of the filing of this Complaint.

83. At least as of the date of the filing of this Complaint, Orbcomm's infringement has been willful.

84. CalAmp has suffered damages as a result of Orbcomm's infringement of the '839 patent.

#### **DEMAND FOR A JURY TRIAL**

85. CalAmp demands a jury trial on all claims and issues pursuant to Federal Rule of Civil Procedure 38(a).

#### **PRAYER FOR RELIEF**

WHEREFORE, CalAmp prays that this Court enter judgment against Orbcomm as follows:

A. Adjudge and decree that Orbcomm has infringed, directly or indirectly, one or more claims of the '355 patent;

B. Adjudge and decree that Orbcomm's infringement of the '355 patent has been willful;

C. Adjudge and decree that the '355 patent is valid and enforceable;

D. Adjudge and decree that Orbcomm has infringed, directly or indirectly, one or more claims of the '839 patent;

E. Adjudge and decree that Orbcomm's infringement of the '839 patent has been willful;

F. Adjudge and decree that the '839 patent is valid and enforceable;

G. Award to CalAmp damages adequate to compensate CalAmp for the patent infringement that has occurred, together with interest and costs;

H. Adjudge and decree that Orbcomm's infringement has been willful and egregious and award to CalAmp enhanced damages;

I. Adjudge and decree that this is an exceptional case and award to CalAmp its attorneys' fees and expenses;

J. Award to CalAmp such other and further relief, including other monetary and equitable relief, as this Court deems just and proper.

Dated: October 26, 2016

/s/Harrison M. Gates

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